



# Health is Academic: A Coordinated Approach to School Health

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**WHOLE SCHOOL,**  
**WHOLE COMMUNITY,**  
**WHOLE CHILD**



# Academic Achievement

## Academic performance

- Class grades
- Standardized tests
- Graduation rates

## Education behavior

- Attendance
- Drop out rates
- Behavioral problems at school

## Students' cognitive skills and attitudes

- Concentration
- Memory
- Mood



# Success in School is More Than Just Academics

Schools must also consider other factors that affect  
academic achievement:

## Healthy Food Options

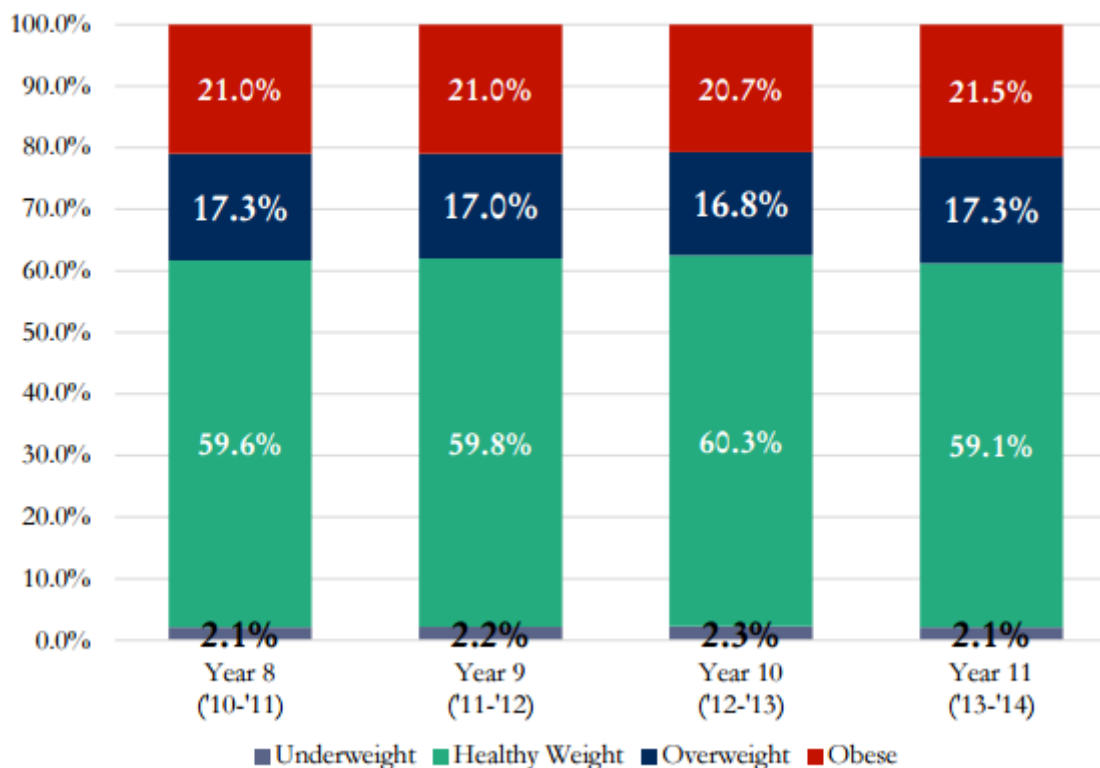


## Opportunities To Be Physically Active



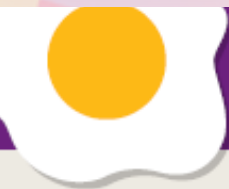
**17% of children in Arkansas ages 2-19 are **overweight****  
**21% of children in Arkansas ages 2-19 are **obese****

Figure 2. Year 8–Year 11 Trends in BMI Classification for Arkansas Public School Students  
(Grades K, 2, 4, 6, 8, and 10)



**Children experiencing homelessness at an increased risk of obesity,  
the Hunger-Obesity Paradox**





## KIDS WHO EAT SCHOOL BREAKFAST...

### MISS LESS SCHOOL



They attend an average of  
**1.5 more days**  
per year

### DO BETTER IN MATH:



They average  
**17.5% higher**  
math test scores



**MORE ATTENDANCE**



**HIGHER MATH SCORES =**

**20%** more likely to  
graduate high school



**AND KIDS WHO EAT BREAKFAST  
REAP THE BENEFITS AS ADULTS, TOO:**



High school graduates on average earn

**\$10,000**  
more annually



Less likely to experience

**HUNGER**  
as adults

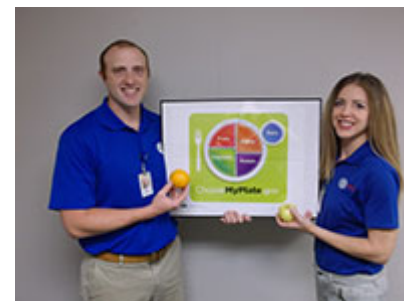


# Healthy Eating and Academic Achievement

Dietary Behavior/Issue	Related Academic Achievement Outcomes
<b>Participation in the School Breakfast Program (SBP)</b>	<ul style="list-style-type: none"><li>• Increased academic grades and standardized test scores</li><li>• Reduced absenteeism</li><li>• Improved cognitive performance</li></ul>
<b>Skipping breakfast</b>	<ul style="list-style-type: none"><li>• Decreased cognitive performance</li></ul>
<b>Lack of adequate consumption of specific foods</b>	<ul style="list-style-type: none"><li>• Lower grades</li></ul>
<b>Deficits in specific nutrients</b>	<ul style="list-style-type: none"><li>• Lower grades</li><li>• Higher rates of absenteeism and tardiness</li></ul>
<b>Insufficient food intake</b>	<ul style="list-style-type: none"><li>• Lower grades</li><li>• Higher rates of absenteeism</li><li>• Repeating a grade</li><li>• Inability to focus</li></ul>

# Nutrition Education

- **Arkansas Hunger Relief Alliance, No Kid Hungry Campaign**
  - Alternative Breakfast
  - Afterschool and Summer Meals
  - Cooking Matters in the Store
- **University of Arkansas Cooperative Extension**
  - SNAP-Ed nutrition education curriculum
- **Arkansas Children's Hospital**
  - Healthy Habits for K-5
  - F.A.N. Club for middle school
  - KidsHealth Web Library



## Microwave Cooking

### Why cook with a microwave?

Microwave cooking helps you:

- save time
- save energy because cooking is fast
- retain color, flavor, texture, and nutrients in foods, especially in vegetables
- with less clean up, since foods can be served in the cooking container

### How do microwaves cook food?

Microwave ovens have 'tubes' that change regular electricity into high-frequency microwaves. Ovens have a fan, usually at the top of the oven, that circulate the microwaves.

Water, fat, and sugar absorb microwaves, causing food particles to vibrate or move very fast. This produces heat, which cooks your food.

### Quick Hints for Microwaving

#### COOKING TIMES:

Compact and other low-wattage microwave ovens (600 watts or less) may need longer cooking times than what is listed on some recipes and packages.

#### EVEN COOKING:

Rotate, stir or re-arrange large amounts of food once or twice during microwaving. Microwave ovens with a carousel feature rotate automatically.

#### STANDING TIME:

Food removed from a microwave oven need 'standing time' to finish cooking. Wait a few minutes before serving and eating.

#### CLEANING UP:

Keep your microwave oven clean. Wipe spills and spatters right away, especially around the door and seals. Food spills can affect cooking time and oven efficiency.

To keep food with skin from exploding, poke holes with a fork before cooking.

KEEPING SAFE: - See "Safety Tips" on last page.





# active kids learn better



physical activity at school is a win-win for students and teachers

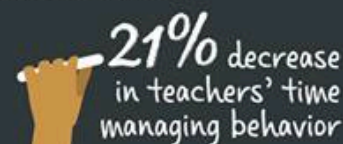
GRADES:



STANDARDIZED TEST SCORES:

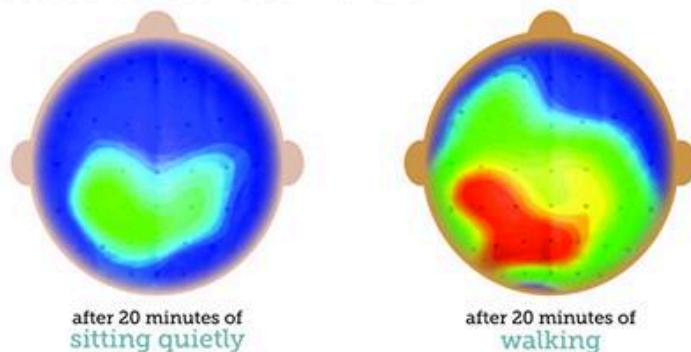


JUST ONE PHYSICALLY ACTIVE LESSON CREATES:



## physically active kids have more active brains

BRAIN SCANS OF STUDENTS TAKING A TEST:



Red areas are very active; blue areas are least active.

MORE RESULTS:

after 20 minutes of physical activity:

students tested better in reading, spelling & math and were more likely to read above their grade level

after being in a physically active afterschool program for 9 months:

memory tasks improved 16%

SOURCES: Donnelly J.E. and Lambourne K. (2011). Classroom-based physical activity, cognition, and academic achievement. *Prev Med*, 52(Suppl 1):S36-S42. Hillman C.H. et al. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience*, 159(3):1044-1054. Kamijo K. et al. (2011). The effects of an afterschool physical activity program on working memory in preadolescent children. *Dev Sci*, 14(5):1046-1058. Kibbe D.L. et al. (2011). Ten years of TAKE 10: integrating physical activity with academic concepts in elementary school classrooms. *Prev Med*, 52(Suppl 1):S43-S50. Nelson M.C. and Gordon-Larson P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics*, 117(4): 1281-1290.

Learn more about why active kids learn better and how schools can help at [activelivingresearch.org/activeeducationbrief](http://activelivingresearch.org/activeeducationbrief).

# Physical Activity and Academic Achievement

Physical Activity Practice	Related Academic Achievement Outcomes
Students who are physically active	<ul style="list-style-type: none"><li>• Have better grades, better school attendance, and better classroom behaviors</li></ul>
Higher physical activity and physical fitness levels	<ul style="list-style-type: none"><li>• Improved cognitive performance</li></ul>
More participation in physical education class	<ul style="list-style-type: none"><li>• Better grades, standardized test scores, and classroom behavior</li></ul>
Time spent in recess	<ul style="list-style-type: none"><li>• Improved cognitive performance and classroom behaviors</li></ul>
Participation in brief classroom physical activity breaks	<ul style="list-style-type: none"><li>• Improved cognitive performance, classroom behaviors, and education outcomes</li></ul>
Participation in extracurricular physical activities	<ul style="list-style-type: none"><li>• Higher GPAs, lower drop-out rates, and fewer disciplinary problems</li></ul>



# Physical Education

- The foundation of comprehensive school physical activity
- Effective Physical Education:
  - Adequate instructional time
  - All classes to be taught by qualified PE specialists
  - Proper equipment and facilities
  - Adaptations for students with disabilities
  - Well-designed, sequential, evidence-based curriculum

# Physical Activity During School

This includes classroom activity and recess:

- **Classroom activity**
  - Even 5-10 minutes in duration contributes to cognitive health
  - GoNoodle, Brain Boosters,
  - Pre-K through 12<sup>th</sup> grade
- **Active Recess**
  - Minimum 20 minutes per day
  - Activity zones, active supervision, equipment
  - “Drop-in” physical activity in secondary schools
- **Integrated Learning**, i.e. School Gardens



# Before and After School

- School or community-sponsored activities before and after school
  - Active commuting to school
    - Walk and bike to school
    - Walking school bus
  - Physical activity walking and running clubs
  - Intramurals (voluntary, student-centered, and all students)
  - Joint use agreements with community centers/buildings



# Staff Involvement

- Incorporate staff into PA programs
- Tailor programming to staff requests
- Service to staff via Employee Wellness Programs
  - Medical screenings
  - Walking programs
  - Group fitness
- Brain boosters during meetings/ in-service
- Role model for students





# Family and Community Engagement

- Engaging families and community to be active beyond the school day
- Social support is critical in youth physical activity choices
- Parent/guardian-led activities
- Family events
- Youth sports



**WHOLE SCHOOL,**  
**WHOLE COMMUNITY,**  
**WHOLE CHILD**



**Healthy Kids Learn Better**



# Healthy Kids. Successful Students. Better Communities.



## SCHOOL HEALTH SERVICES

Creating and Sustaining a Healthy School Culture

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